



Standard Three Axes Servo Driven Robot

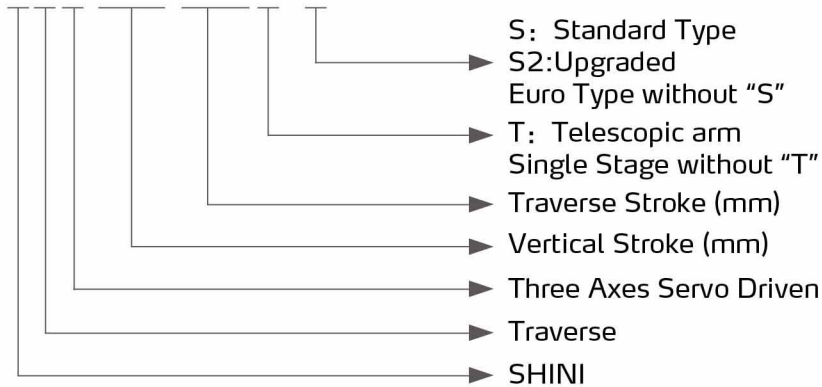
ST3-700-1400-S2



Refer carefully to this manual before operation.

■ Coding Principle

S T 3-xxxx-xxxx T - S



Home Page



Program Page

■ Features

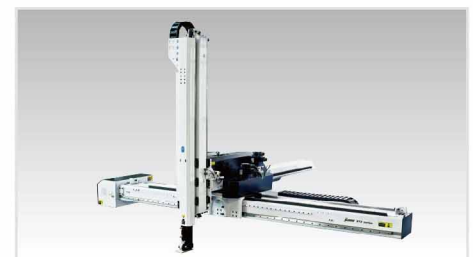
- Precision
 All linear movements are driven by heavy duty servo motors with cooperation of precise linear guide rails and high power V belts; fast, silent, and precise. Wrist mechanism employs pneumatic driven rack and pinion system, which accomplishes smooth, stabled and precise flipping motion. Vertical arm with telescopic design efficiently minimizes the cycle time and height of the robot.
- Safety
 Position limit sensors and blocks effectively prevent mechanical and electrical malfunctions. Control board with short circuit function.
- Intelligence
 8.0 inch high definition TFT touch screen. 3-point switch for safer robot operation. CPU modularization, the operator, main control modular and extension modular has independent CPU, improve the system's respond and keep it safety. The hardware used multi-layer PCB and multi-rank high precision electrical modular, strong anti - interference ability. Hardware protect function, each signal output with intelligent detection, avoid short-circuit, overload and high temperature. Base on the VARAN BUS technology, the system can be extended, strong adaptability and flexibility. Teach modules with stacking and matrix locate functions, support conditional judgment, loop control, signal waiting and others logic instructions.
- User Friendly
 Multi-languages system and reserved auxiliary equipment slots able to support our global clients' need.



ST3-700-1400T-S2



ST3-1400-2200MT-S



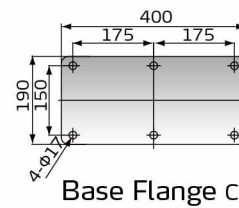
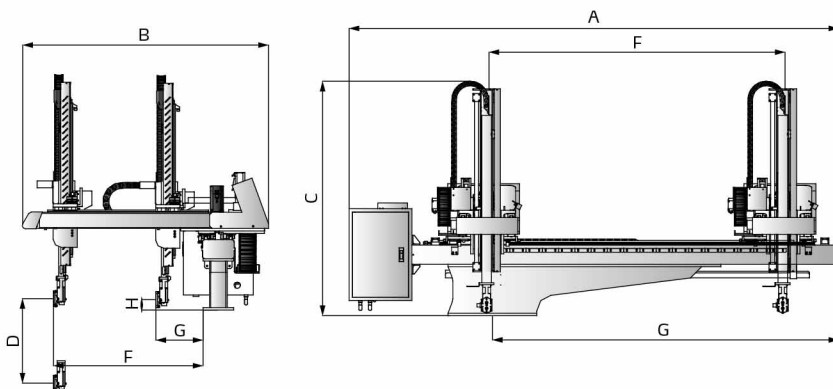
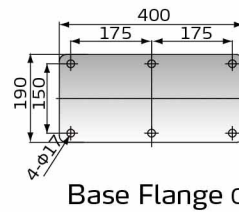
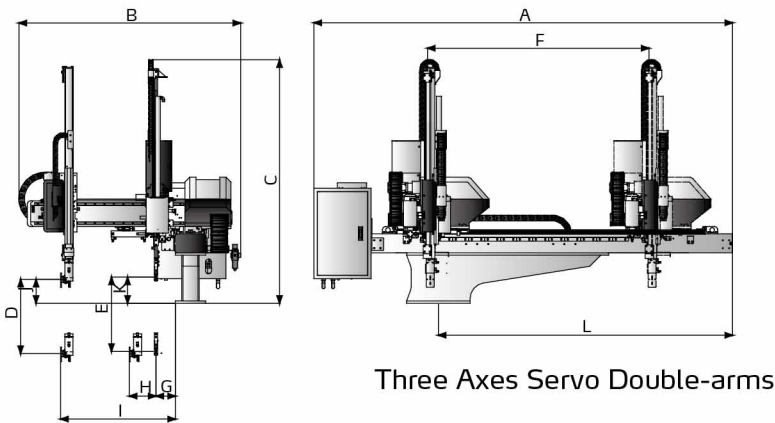
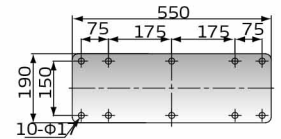
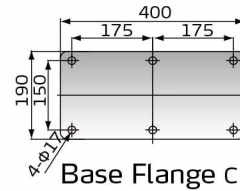
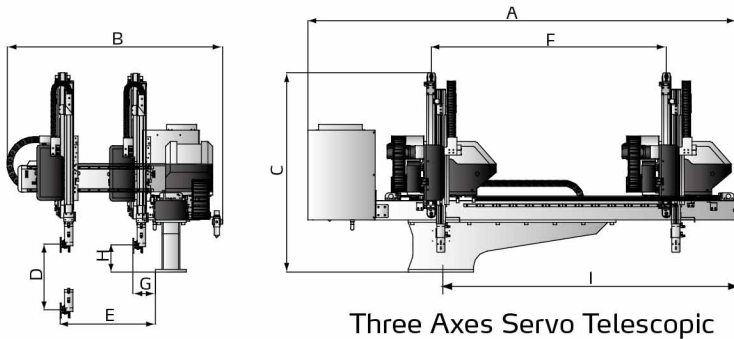
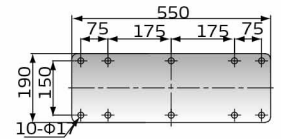
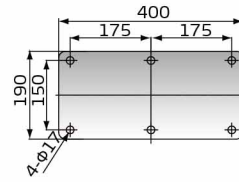
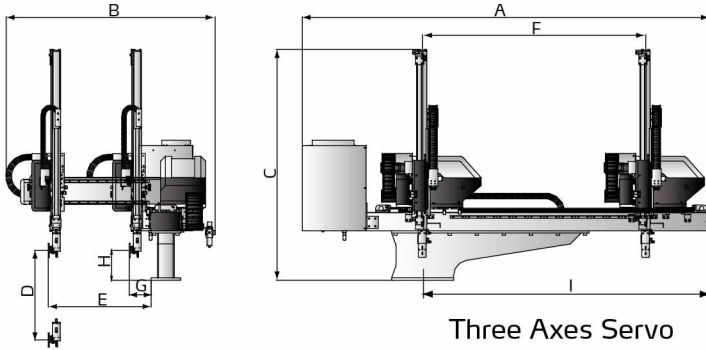
ST3-1800-2400LT-S

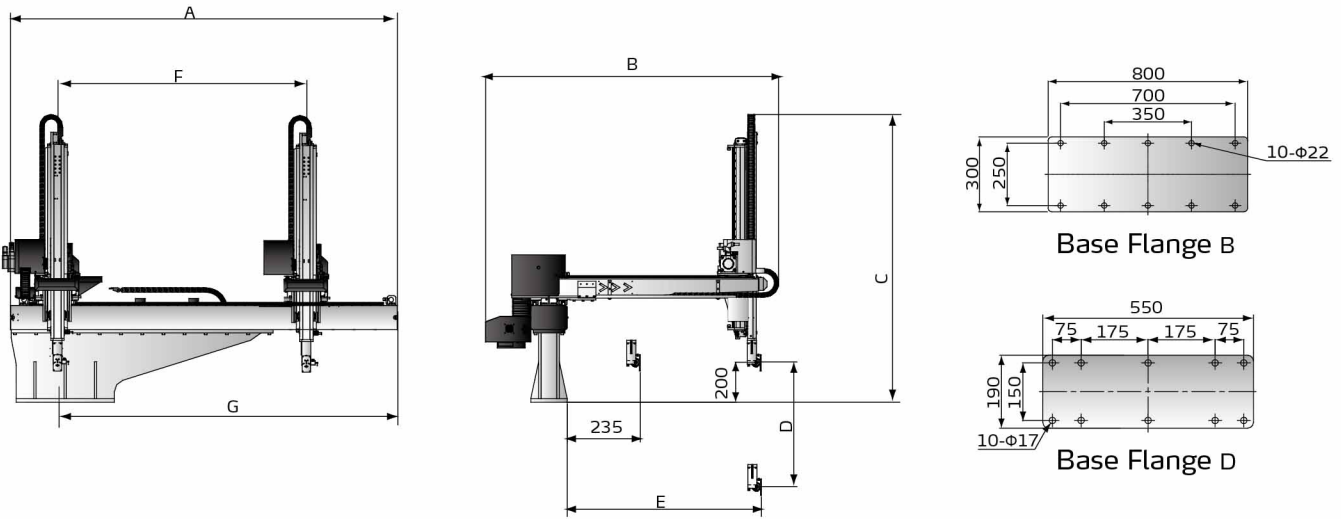
■ Application

The ST3-S series robot is designed for rapid and precise removal of products from injection molding machine, and place them at desired locations. Apply to 2-plate mold or hot runner system. Capable of arranging, stacking, quality checking and in mold placement. Suitable for injection molding machine with clamping force under 3600 tons.

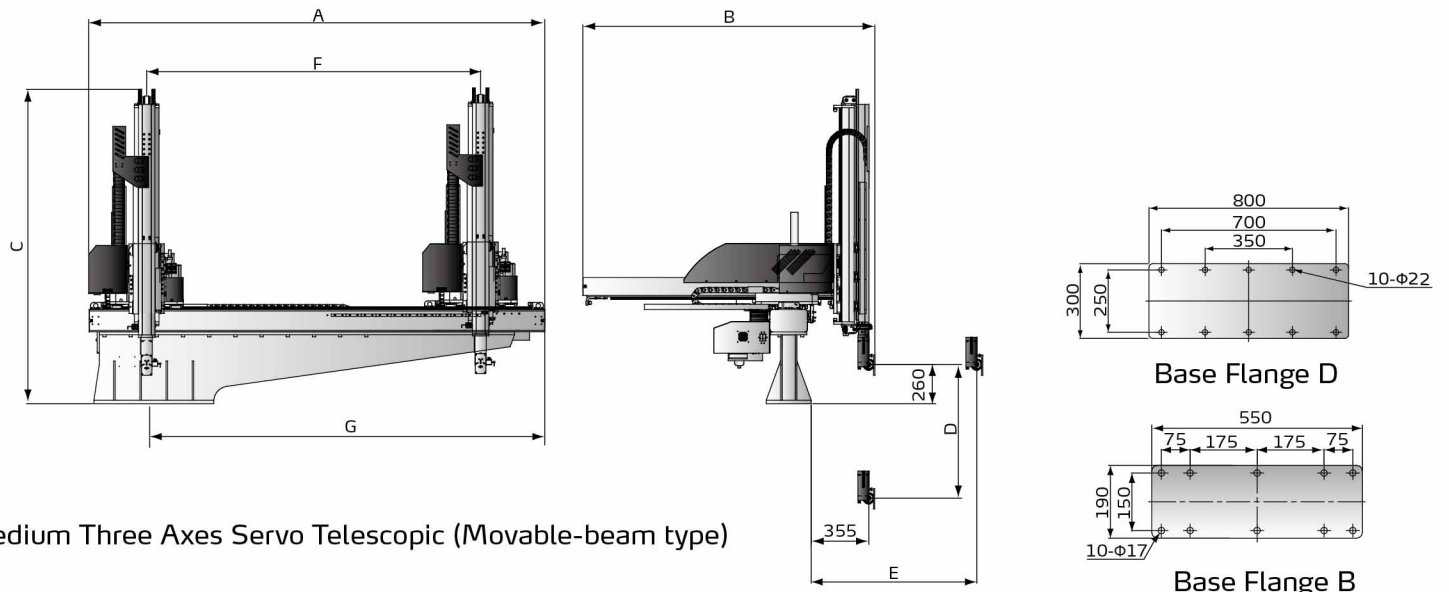
ST3-S Series

Outline Drawings

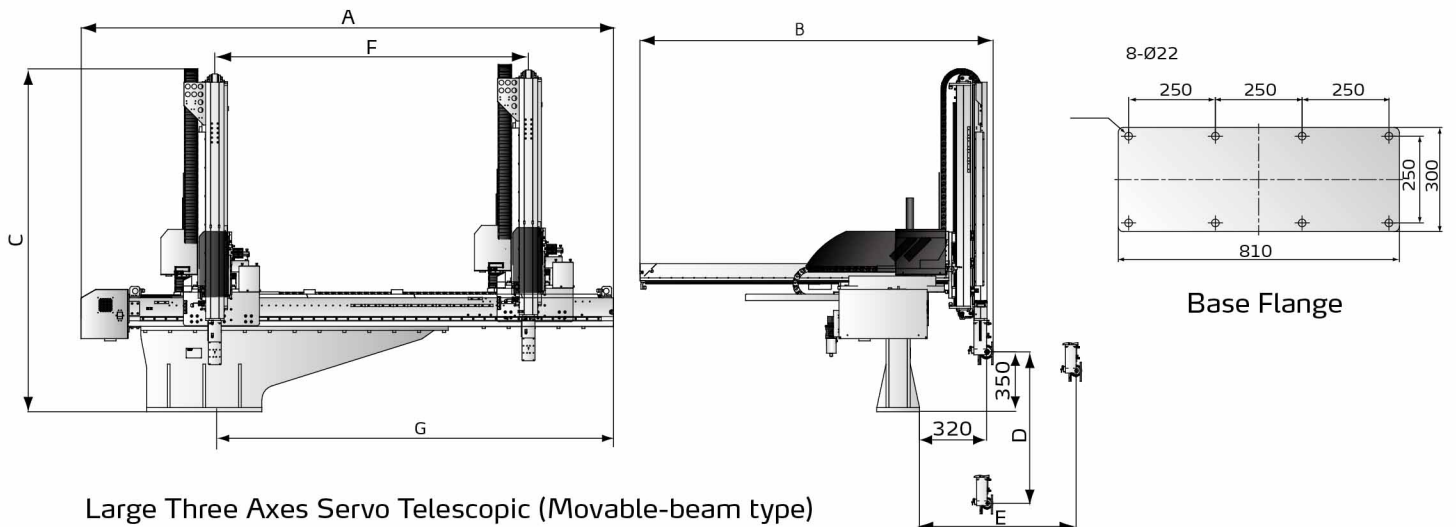




Medium Three Axes Servo Telescopic c



Medium Three Axes Servo Telescopic (Movable-beam type)



Large Three Axes Servo Telescopic (Movable-beam type)

ST3-S Series

Specifications

Model(Single stage)ST3-	700-1200-S2	700-1400-S2	800-1400-S2	900-1600-S2	1000-1600-S2	1100-1800-S2	1200-1800-S2	
IMM (ton)	50~80	80~160	160~220	220~260	260~320	320~400	400~450	
Traverse Stroke (mm)	1200	1400	1400	1600	1600	1800	1800	
Crosswise Stroke (mm)	470	470	470	560	610	690	690	
Vertical Stroke (mm)	700	700	800	900	1000	1100	1200	
Max Load (with tool) (kg)	5	5	5	6	6	6	6	
Min Pick-out Time (sec)	1.3	1.3	1.3	1.4	1.4	1.6	1.6	
Min Cycle Time (sec)	5.2	5.2	5.2	5.8	6.2	6.5	6.8	
Air Pressure (bar)	4~6	4~6	4~6	4~6	4~6	4~6	4~6	
Max. Air Consumption (NI/cycle)*	4	4	4	4	4	4	4	
Weight (kg)	240	240	250	270	280	300	310	
Base Type	Base C	Base C	Base C	Base C	Base C	Base D	Base D	
Dimensions (mm)	A	2270	2600	2600	2800	2800	3010	3010
	B	1200	1350	1350	1450	1490	1570	1570
	C	1540	1490	1590	1690	1800	1900	2000
	D(max)	700	700	800	900	1000	1100	1200
	E(max)	610	610	610	710	775	855	855
	F(max)	1200	1400	1400	1600	1600	1800	1800
	G	155	155	155	155	165	165	165
	H	110	190	190	135	135	135	135
	I	1580	1820	1820	2020	2020	2220	2220

Model(Small telescopic) ST3-	700-1200T-S2	700-1400T-S2	800-1400T-S2	900-1600T-S2	1000-1600T-S2	
IMM (ton)	50~80	80~160	160~220	220~260	260~320	
Traverse Stroke (mm)	1200	1400	1400	1600	1600	
Crosswise Stroke (mm)	425	425	425	525	650	
Vertical Stroke (mm)	700	700	800	900	1000	
Max Load (with tool) (kg)	3	3	3	5	5	
Min Pick-out Time (sec)	1.2	1.2	1.2	1.3	1.3	
Min Cycle Time (sec)	5	5	5	5.5	6	
Air Pressure (bar)	4~6	4~6	4~6	4~6	4~6	
Max. Air Consumption (NI/cycle)*	4	4	4	4	4	
Weight (kg)	240	240	250	270	280	
Base Type	Base C	Base C	Base C	Base C	Base C	
Dimensions (mm)	A	2480	2680	2680	2880	2940
	B	1365	1365	1365	1465	1550
	C	1220	1220	1270	1330	1380
	D	700	700	800	900	1000
	E	630	630	630	720	805
	F	1200	1400	1400	1600	1600
	G	155	155	155	155	155
	H	150	150	150	150	195
	I	1620	1820	1820	2020	2020

Notes: 1) "M" stands for middle mold detector. (suitable for three-plate mold.)
 "EM12" stands for EUROMAP 12 communication interface.
 "EM67" stands for EUROMAP 12 communication interface.
 "ABS" at the end of the model code stands for models of high precision.
 "N" stands for non-operation side, operation side without "N"

2) Power supply: 1Φ, 200~240V, 50/60Hz.

3) " * " Max. air consumption for vacuum device 60NI/min.

We reserve the right to change specifications without prior notice.



Model(Small stationary-beam)		ST3-950-1400HT-S2	ST3-1100-1600HT-S2	ST3-1100-1800T-S2	ST3-1200-1800T-S2
IMM (ton)		220~280	320~400	320~400	400~450
Traverse Stroke (mm)		1400	1600	1800	1800
Crosswise Stroke (mm)	Main Arm	560	680	680	680
	Sub Arm	/	/	/	/
Vertical Stroke (mm)	Main Arm	950	1100	1100	1200
	Sub Arm	/	/	/	/
Max Load (with tool) (kg)		3	3	5	5
Min Pick-out Time (sec)		1	1.2	1.5	1.5
Min Cycle Time (sec)		3.9	4.2	6.2	6.5
Air Pressure (bar)		4~6	4~6	4~6	4~6
Max. Air Consumption (NL/cycle)*		4	4	4	4
Weight (kg)		340	340	320	340
Dimensions (mm)	A	2640	2840	3040	3040
	B	1410	1530	1530	1530
	C	1400	1455	1455	1510
	D (max)	950	1100	1100	1200
	E (max)	830	950	950	950
	F (max)	1400	1600	1800	1800
	G (min)	190	190	190	190
	H	65	65	65	65
	I	1750	1950	2150	2150

Model(Double-arm)		ST3-700-1400D-S2	ST3-800-1400D-S2	ST3-900-1600D-S2	ST3-1000-1600D-S2	ST3-700-1400DT-S2	ST3-800-1400DT-S2	ST3-900-1600DT-S2	ST3-1000-1600DT-S2
IMM (ton)		80~160	160~220	220~260	260~320	80~160	160~220	220~260	260~320
Traverse Stroke (mm)		1400	1400	1600	1600	1400	1400	1600	1600
Crosswise Stroke (mm)	Main Arm	320	320	310	310	290	290	280	280
	Sub Arm	100	100	150	150	100	100	150	150
Vertical Stroke (mm)	Main Arm	700	800	900	1000	700	800	900	1000
	Sub Arm	750	850	950	1050	750	850	950	1050
Max Load (with tool) (kg)		3	3	5	5	3	3	5	5
Min Pick-out Time (sec)		1.3	1.3	1.4	1.4	1.2	1.2	1.3	1.3
Min Cycle Time (sec)		5.2	5.4	5.8	6.2	5	5	5.5	6
Air Pressure (bar)		4~6	4~6	4~6	4~6	4~6	4~6	4~6	4~6
Max. Air Consumption (NL/cycle)*		10	12	14	16	8	10	12	14
Weight (kg)		260	270	280	320	280	290	320	350
Base Type		Base C	Base C	Base C	Base C	Base C	Base C	Base C	Base C
Dimensions (mm)	A	2600	2600	2800	2800	2600	2600	2800	2800
	B	1400	1400	1460	1460	1400	1400	1460	1460
	C	1535	1635	1735	1835	1220	1270	1340	1400
	D(max)	700	800	900	1000	700	800	900	1000
	E(max)	750	850	950	1050	750	850	950	1050
	F(max)	1400	1400	1600	1600	1400	1400	1600	1600
	G(max)	120	120	120	120	160	160	160	160
	H(max)	185	185	185	185	145	145	145	145
	I(max)	725	725	770	770	690	690	740	740
	J	150	150	150	150	175	175	175	175
	K	100	100	100	100	125	125	125	125
	L	1820	1820	2020	2020	1820	1820	2020	2020

- Notes: 1) "M" stands for middle mold detector. (suitable for three-plate mold.)
 "EM12" stands for EUROMAP 12 communication interface.
 "EM67" stands for EUROMAP 12 communication interface.
 "ABS" at the end of the model code stands for models of high precision.
 "N" stands for non-operation side, operation side without "N"
 2) Power supply: 1Φ, 200~240V, 50/60Hz.
 3) " * " Max. air consumption for vacuum device 60NL/min.

We reserve the right to change specifications without prior notice.

ST3-S Series

Model (Stationary-beam Type)	ST3-1300-2000T-S	ST3-1400-2000T-S	ST3-1500-2200T-S	ST3-1600-2200T-S	ST3-1700-2200T-S
IMM (ton)	450-600T	450-600T	600-700T	700-850T	700-850T
Traverse Stroke (mm)	2000	2000	2200	2200	2200
Crosswise Stroke (mm)	800	900	900	1000	1100
Vertical Stroke (mm)	1300	1400	1500	1600	1700
Rated(Max)Load (with tool)(kg)	10	10	12	12	12
Min Pick-out Time(sec)	3	3	3.2	3.3	3.4
Min Cycle Time (sec)	12.5	13	13.5	14	15
Air Pressure (bar)	4~6	4~6	4~6	4~6	4~6
Max. Air Consumption (Nl/cycle)*	6	6	6	6	6
Weight (kg)	500	530	550	580	600
Base Type	Base D	Base D	Base D	Base B	Base B
Dimensions (mm)	A	3610	3610	3810	3810
	B	2000	2100	2100	2250
	C	1700	1750	1800	2050
	D(max)	1300	1400	1500	1600
	E(max)	1050	1150	1150	1250
	F(max)	2000	2000	2200	2200
	G	2700	2700	2900	2900

Model (Movable-beam Type)	ST3-1200-1800MT-S	ST3-1300-2000MT-S	ST3-1400-2000MT-S	ST3-1500-2200MT-S	ST3-1600-2200MT-S	ST3-1700-2200MT-S
IMM (ton)	300-450T	450-600T	450-600T	600-700T	700-850T	700-850T
Traverse Stroke (mm)	1800	2000	2000	2200	2200	2200
Crosswise Stroke (mm)	800	800	900	900	1000	1000
Vertical Stroke (mm)	1200	1300	1400	1500	1600	1700
Rated(Max)Load(with tool)(kg)	10(15)	10(15)	10(15)	10(15)	20(30)	20(30)
Min Pick-out Time (sec)	2.8	3	3	3.2	3.3	3.4
Min Cycle Time (sec)	12	12.5	13	13.5	14	15
Air Pressure (bar)	4~6	4~6	4~6	4~6	4~6	4~6
Max. Air Consumption (Nl/cycle) *	6	6	6	6	6	6
Weight (kg)	480	500	530	550	580	600
Base Type	Base D	Base D	Base D	Base B	Base B	Base B
Dimensions (mm)	A	2960	3160	3160	3460	3460
	B	1617	1617	1717	2000	2000
	C	1790	1840	1890	2100	2100
	D(max)	1200	1300	1400	1500	1600
	E(max)	1155	1155	1255	1255	1355
	F(max)	1800	2000	2000	2200	2200
	G	2250	2450	2450	2650	2650

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 "N" stands for non-operation side, operation side without "N"
 2) Power supply: 1Φ, 200~240V, 50/60Hz.
 3) " * " Max. air consumption for vacuum device 60Nl/min.

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Model (Movable-beam Type)	ST3-1800-2400MT-S	ST3-1900-2400MT-S	ST3-2000-2800MT-S	ST3-2100-2800MT-S	ST3-2200-3000MT-S	
IMM (ton)	850~1400T	850~1400T	1400~1800T	1400~1800T	1800~2400T	
Traverse Stroke (mm)	2400	2400	2800	2800	3000	
Crosswise Stroke (mm)	1200	1200	1200	1400	1400	
Vertical Stroke (mm)	1800	1900	2000	2100	2200	
Rated(Max)Load(with tool)(kg)	20(30)	20(30)	20(30)	20(30)	20(30)	
Min Pick-out Time (sec)	3.6	3.6	3.8	3.8	4	
Min Cycle Time (sec)	16	17	17.5	18	19	
Air Pressure (bar)	4~6	4~6	4~6	4~6	4~6	
Max. Air Consumption (NI/cycle) *	6	6	6	6	6	
Weight (kg)	650	670	690	720	750	
Base Type	Base B	Base B	Base B	Base B	Base B	
Dimensions (mm)	A	3660	3860	3860	4060	4060
	B	2200	2200	2200	2400	2400
	C	2200	2300	2300	2400	2400
	D(max)	1800	1900	2000	2100	2200
	E(max)	1555	1555	1555	1755	1755
	F(max)	2400	2400	2800	2800	3000
	G	2850	2850	3250	3250	3450

Model(Large telescopic)	ST3-1800-2400LT-S	ST3-2000-2800LT-S	ST3-2200-3000LT-S	ST3-2600-3200LT-S	ST3-3000-3400LT-S	
IMM (ton)	850 ~ 1400T	1400 ~ 1800T	1800 ~ 2400T	2400 ~ 3000T	3000 ~ 3600T	
Traverse Stroke (mm)	2400	2800	3000	3200	3400	
Crosswise Stroke (mm)	1340	1500	1500	1660	1820	
Vertical Stroke (mm)	1800	2000	2200	2600	3000	
Rated(Max)Load(with tool)(kg)	40(60)	40(60)	40(60)	40(60)	40(60)	
Min Pick-out Time (sec)	3.8	4.0	4.2	4.5	5.0	
Min Cycle Time (sec)	20	22	24	26	28	
Air Pressure (bar)	4 ~ 6	4 ~ 6	4 ~ 6	4 ~ 6	4 ~ 6	
Max. Air Consumption (NI/cycle) *	8	8	8	8	8	
Weight (kg)	920	950	990	1010	1080	
Dimensions (mm)	A	3900	4300	4500	4700	4900
	B	2500	2650	2650	2820	2980
	C	2400	2500	2600	2800	3000
	D (max)	1800	2000	2200	2600	3000
	E (max)	1750	1900	1900	2050	2250
	F (max)	2400	2800	3000	3200	3400
	G	2900	3300	3500	3700	3900

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2) Power supply: 1Φ, 200~240V, 50/60Hz.
3) " * " Max. air consumption for vacuum device 60NI/min.

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